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***Rocky Enterprise Linux 9.2 Manual Pages on command 'csinh.3'***

**\$ man csinh.3**

CSINH(3) Linux Programmer's Manual CSINH(3)

**NAME**

csinh, csinhf, csinhl - complex hyperbolic sine

**SYNOPSIS**

```
#include <complex.h>

double complex csinh(double complex z);
float complex csinhf(float complex z);
long double complex csinhl(long double complex z);

Link with -lm.
```

**DESCRIPTION**

These functions calculate the complex hyperbolic sine of z. The complex hyperbolic sine function is defined as:

$$\operatorname{csinh}(z) = (\exp(z) - \exp(-z)) / 2$$

**VERSIONS**

These functions first appeared in glibc in version 2.1.

**ATTRIBUTES**

For an explanation of the terms used in this section, see attributes(7).

??

?Interface           ? Attribute   ? Value   ?

??

?csinh(), csinhf(), csinhl() ? Thread safety ? MT-Safe ?

??

**CONFORMING TO**

C99, POSIX.1-2001, POSIX.1-2008.

#### SEE ALSO

cabs(3), casinh(3), ccosh(3), ctanh(3), complex(7)

#### COLOPHON

This page is part of release 5.10 of the Linux man-pages project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <https://www.kernel.org/doc/man-pages/>.

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